

# Special Issue

## Advances in Genomics and Ecology of Environmental Microorganisms

### Message from the Guest Editor

Recent advancements in genomics and metagenomics have significantly deepened our understanding of environmental microorganisms, which play a crucial role in ecosystem functioning and biogeochemical cycles. High-throughput sequencing technologies have transformed microbial community studies, enabling metagenomic analyses that uncover the genetic diversity and functional capabilities of these organisms directly from environmental samples. The advanced genomics and bioinformatics tools have also enhanced our ability to predict how microorganisms adapt to environmental changes like climate change and pollution.

The aim of this Special Issue of *Microorganisms* is to collect innovative research and reviews that explore the genomic and ecological aspects of environmental microorganisms across diverse habitats, including marine, terrestrial, human, and built environments. We seek contributions that highlight the application of high-throughput sequencing and bioinformatics in uncovering microbial diversity and function, as well as their implications for ecosystem health and environmental sustainability.

### Guest Editor

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## About the Journal

### Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

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### Editor-in-Chief

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